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ADDITIONS TO CERCOSPORA, GLOEOSPORIUM AND CYLINDROSPORIUM.

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CERCOSPORA DESTRUCTIVA, Ravenel.—On dying leaves of *Euonymus Japonica*, Aiken, So. Car., September, 1886. H. W. Ravenel, No. 4122. Spots amphigenous, brown, becoming gray or whitish, 3—4 millim. in diam., with a narrow, raised, darker border, sometimes confluent and covering a large part of the leaf; hyphæ amphigenous, but more perfectly developed above, erumpent, in large (one sixth to one fifth millim.) scattered, spæriæform tufts of a smoky olive color, 30—45 x 3—4 μ , olive-brown, simple, subdentate above, sparingly septate, bearing at their tips the oblong or obclavate, 1—3-septate, subhyaline, 20—40 x 3 μ conidia.

CERCOSPORA SERPENTARIA, E. & E.—On living leaves of *Aris-tolochia serpentaria*, Faulkland, Del., September, 1886. A. Commons, No. 337. Spots amphigenous, gray, with a narrow black border, which again is often surrounded by a fuscous belt included in a second narrow black border, diameter of the gray spot, 1—1½ millim., or of the whole, 3—4 millim.; hyphæ mostly hypophyllous, forming smoky-colored tufts thickly scattered over the gray spots, simple, continuous or sparingly septate, abruptly bent and toothed, pale brown, 50—75 x 4—5 μ ; conidia fusoid, 1—3-septate, 40—60 x 4—5 μ , or subacicular, elongated to 75 or 80 μ long, 3—5-septate, smoky or yellowish hyaline. Very different from *C. olivascens*, Sacc.

CERCOSPORA STYLOSANTHIS, E. & E.—On dead, brown, rather indefinitely-limited spots and parts of the leaves of *Stylosanthes elatior*, Delaware, September, 1886. Commons, No. 336. Hypophyllous; tufts subconfluent, subolivaceous; hyphæ densely tufted, very short (15—20 x 4—5 μ), simple, contracted above, mostly entire, pale brown; conidia obclavate, slender, 50—75 x 3 μ , faintly 3—5-septate, yellowish-hyaline. The affected leaves have a dead, scorched look.

CERCOSPORA SEQUOLE, E. & E.—On dying foliage of *Sequoia gigantea*, Germantown Nurseries, Penn., September, 1886. Com. Thos. Meehan. Forming large, compact, olivaceous tufts which, under the lens, resemble the perithecia of a *Sphaerella*; hyphæ (under the microscope) ferruginous, brown, abruptly bent, subnodulose and toothed, sparingly

septate, 50--70 x 4--5 μ , oblong, becoming obclavate, same color as the hyphæ, 40--70 x 4--6 μ , 3--5-septate and some of them strongly constricted at the septa. This appears to be the only species described on coniferous trees, but it is a good *Cercospora*.

Var. *Juniperi*, collected by Dr. J. J. Davis at Powers' Lake, Kenosha Co., Wis., August, 1886, on foliage of *Juniperus Virginiana*, differs in its darker-colored tufts and more dwarfish habit—conidia 15--30 x 3 μ and hyphæ proportionally smaller.

CERCOSPORA CONDENSATA, E. & K., var. *Desmanthi*, was also sent by Mr. Langlois (No. 548) on *Desmanthus brachylobus*. The habit of growth is so different that we now think it should constitute a distinct species, *C. DESMANTHI*, E. & K.

CERCOSPORA AMARYLLIDIS, E. & E.—On fading leaves of *Amaryllis* (cult), Louisiana, July, 1886. Langlois, No. 589. Spots indistinct or none; amphigenous, but mostly epiphyllous, forming grayish, subelongated, indefinitely-limited patches scattered irregularly over the leaf; hyphæ rather densely tufted, coarse (6--7 μ thick and 50--70 μ long), brown, sparingly septate, subtruncate above and sparingly toothed, nearly straight; conidia much attenuated above and often subundulate, hyaline, 4--6-septate, 60--80 x 4--5 μ . A very distinct species. The hyphæ arise from a tubercular base and are for the most part nearly straight, cylindrical and entire, and of a light gray color at first, but become darker.

CERCOSPORA SAURURI, E. & E.—On living leaves of *Saururus cernuus*, Louisiana, July, 1886. Langlois, No. 599. Spots amphigenous, nearly black, suborbicular or irregular, not very accurately limited, leaf turns yellowish around them ($\frac{1}{2}$ — $\frac{3}{4}$ cm.); hyphæ amphigenous, tufted, pale brown, sparingly septate, subundulate, but nearly straight, 35--50 x 4 μ ; conidia hyaline, 3--5-septate, somewhat curved, 50--75 x 3 μ .

CERCOSPORA REPENS, E. & E.—On living leaves of *Trachylopernum difforme*, St. Gabriel, La., September, 1886. Langlois, No. 512. Leaves blotched above, with irregular-shaped, indefinite, purplish-brown spots, lower surface only faintly marked with reddish-brown stains; hyphæ hypophyllous, prostrate, spreading over a large part of the leaf, slender ($2\frac{1}{2}$ —3 μ), branching, brown, bearing the slender, hyaline, multinucleate, 70--80 x $2\frac{1}{2}$ —3 μ conidia at their extremities.

CERCOSPORA NOVEBORACENSIS, E. & E.—On leaves of *Vernonia noveboracensis*, Columbia, Mo., September, 1886. (Galloway, No. 163.) Spots none; hypophyllous, effused, forming olivaceous patches covering the greater part of the surface of the leaf; hyphæ loosely fasciculate and effused olive-brown, more or less undulate and toothed above, 1--5-septate, 50--75 x 4 μ ; conidia oblong-cylindrical, subolivaceous, 3--7-septate, obtuse at each end, very variable in length, 20--70 x 3--4 μ . Has the general appearance of *C. clavata*, Ger., nor are the microscopical

characters very different. The patches of hyphæ are, however, less definitely limited and the hyphæ themselves and the conidia may be a little shorter, and as the host-plants belong to different natural orders, it is perhaps best to regard the parasite on *Vernonia* as distinct. From *C. Vernoniæ*, E. & K., and *C. oculata*, E. & K., this will be separated on account of the entire absence of any definite spots. This also much resembles *C. Diospyri*, Thum.

CERCOSPORA LYCOPI, E. & E.—On living leaves of *Lycopus rubellus*, St. Gabriel, La., September, 1886. Langlois, 522. Spots amphigenous, indefinite, dusky brown, 3—4 millim.; hyphæ hypophyllous, in minute tufts, short (15—25 μ), pale brown, continuous, subdentate above; conidia obclavate, yellowish-hyaline, multinucleate, 50—75 x 2½—3 μ .

CERCOSPORA SORGHI, E. & E.—On leaves of *Sorghum Halapense*, Plaquemines Co., La., August, 1886. Langlois, No. 543. On *Zea Mays*, No. 613. Leaves stained dark purple, in strips of several inches in extent, the colored part becoming dead and dry; hyphæ amphigenous, in minute, scattering tufts on the dead part of the leaf, few in a tuft, brown, truncate above and laterally subdentate, 60—80 x 4 μ , continuous or sparingly septate below; conidia slender, faintly three or more septate, 70—80 x 3 μ , hyaline. The tufts of hyphæ are so minute as to be barely visible with a lens. In the var. on *Zea Mays*, there is no purple stain on the leaf, but brown.

CERCOSPORA COLUMBIENSIS, E. & E.—On *Ionidium concolor*, Columbia, Mo. Galloway, No. 71. Spots amphigenous, small (1 millim.), round white with a black border, thin; hyphæ mostly epiphyllous in minute tufts from a small tubercular base, pale brown, simple, entire or somewhat toothed above, 35—55 x 4—5 μ , continuous; conidia hyaline, slender, 4—5-septate, 60—80 x 3 μ at the thick end. The tufts of hyphæ are not abundant, 1—4 only on a spot usually. This is evidently closely allied to the South American species, *C. Tandlensis*, Speg., on *Ionidium glutinosum*, but differs in its much smaller spots and narrower conidia, which are not constricted at the septa.

CERCOSPORA PANCRATII, E. & E.—On leaves of *Pancratium coronarium*, Louisiana, June, 1886. Langlois, No. 656. Spots amphigenous, oblong, 1—2 cm. long by ½—1 cm. wide, of a dull red color and mostly with a narrow, raised border; tufts amphigenous, scattered, minute; hyphæ arising from a sphaeriæform base, short (15—25 x 3 μ), brown; conidia narrow, subfuscous, nucleolate, subattenuated above, 40—50 x 3 μ .

+ CERCOSPORA ELEPHANTOPI, E. & E.—On leaves of *Elephantopus Caroliniensis*, September, Delaware (Commons, No. 75), Mo. (Galloway, No. 140.) Spots indefinite, dirty brown, surrounded by a dark, purplish-shaded border, 2—4 millim. in diameter, more obscure below; tufts subeffused, forming velvety, smoky brown or mouse-colored patches, which finally assume a bluish tint; hyphæ amphigenous, but more abundant below, short (25—35 x 3 μ), continuous, smoky-brown, simple and nearly entire; conidia slender, 75—100 x 3 μ , multinucleate, yellowish-hyaline, gradually attenuated above.

CERCOSPORA ZIZIÆ, E. & E.—On leaves of *Zizia cordata*, West Chester, Pa. B. M. Everhart. Spots brown, fading to gray in the center, nearly round, 3–5 millim. broad; fertile hyphæ erect, smoky-brown, nearly straight, entire, cæspitose, mostly epiphyllous, 3–8 in a tuft, 50–60 x 6–7 μ ; conidia hyaline, cylindric-clavate, multiseptate, 100–130 x 4 μ .

CERCOSPORA HYDROCOTYLES, E. & E.—On leaves of *Hydrocotyle interrupta*, Louisiana. Langlois, No. 681. Spots amphigenous, reddish-brown, 2–3 millim., definite, convex above, concave beneath; hyphæ amphigenous, in minute tufts, thickly scattered over the spots and giving them a granular appearance, pale brown, short and spreading, about 20 x 3 μ , continuous, nearly entire; conidia subcylindrical, subhyaline, 30–40 x 3 μ , nucleate.

✕ CERCOSPORA LINI, E. & E.—On fading leaves of *Linum Virginianum*, Faulkland, Delaware, August, 1886. A. Commons, No. 248. Tufts effused, not on definite spots, affected leaves turning yellow; hyphæ simple, subolivaceous, continuous, forming small but dense tufts 35–40 μ high; conidia slender, 40–60 x 2½–3 μ , nucleolate, smoky-hyaline, slightly curved, gradually attenuated above.

✕ NOTE.—We have also received a specimen of *Cercospora Nasturtii*, Pass., from Delaware, collected by Mr. Commons on *Sisymbrium officinale*. Hyphæ tufted, brown, 70–85 x 3½–4 μ ; conidia 60–75 x 4 μ , 3-septate or more, on pale, orbicular, rather indefinite spots, 3–4 millim. in diam. Specimens of *Cercospora Galii*, Ell. & Holway, from Delaware, on *G. pilosum*, have the conidia 60–90 x 3 μ , nucleolate, but not distinctly septate.

CERCOSPORA RHAMNI, Fckl.—Specimens of this species, collected by John Hogue at Makanda, Ill., October, 1894, have been sent us by Prof. A. B. Seymour. This is distinguished from *C. æruginosa*, Ck., by its longer hyphæ and conidia and its hypophyllous growth.

✕ GRAPHIUM CLAVISPORUM, B. & C., with difficulty distinguished from *Cercospora viticola* (Ces.) Sacc., has been received from Maryland, sent by Prof. F. Lamson Scribner.

CERCOSPORA PLATYSPORA, Ell. & Holway.—On leaves of *Zizia integrissima*, Racine, Wis. Leg. Dr. J. J. Davis, June, 1886. Spots amphigenous, small (1–2 millim.), irregular, partly limited by the veinlets, wood-colored, brown; tufts hypophyllous, black, lax, quite thickly scattered over the spots, but not confluent; hyphæ rusty brown, entire or faintly or sparingly septate, spreading and subundulate, 50–70 x 5–6 μ ; conidia subhyaline, oblong, granular, with an indistinct septum across the middle, mostly 35–40 x 6–7 μ , ends obtuse. The hyphæ often have the tips subuncinate-recurved, and mostly have lateral, shoulder-like projections, which apparently bear conidia.

CERCOSPORA MELIÆ, E. & E.—On living leaves of *Melia Azedarach*, Louisiana, September, 1886. Langlois, No. 791. Spots irregular, subconfluent or mostly in groups, small (2 millim.), dirty brownish or whitish, with a darker border above, much more indistinct and ill-defined

below; tufts amphigenous, crowded in the central part of the spots; hyphæ subolivaceous or smoky-hyaline, arising from a tubercular base, coarse, nearly straight, subtruncate above and finally 5-3-septate, $30-40 \times 4-5 \mu$; conidia linear-obclavate, hyaline, $80-120 \times 4-5 \mu$, multiseptate.

* CERCOSPOERA CRUCIFERARUM, E. & E.—On *Raphanus sativus*, Missouri (Galloway, 129) and on *Sisymbrium officinale*, Delaware (Commons). Spots amphigenous, round, white with a black, raised border, small (1-2 millim.); hyphæ tufted, amphigenous, fuscous, distinctly septate, subgeniculate, subtruncate above and coarsely toothed, $80-120 \times 4-5 \mu$; conidia hyaline, slender, faintly multiseptate, $100-150 \times 4\frac{1}{2} \mu$. The character of the spots as well as the long hyphæ and conidia will distinguish this from *C. Nasturtii*, Pass., and *C. Armoracæ*, Sacc.

CERCOSPOERA PLATANICOLA, E. & E.—On leaves of *Platanus occidentalis*, Louisiana, October, 1886. Langlois, No. 557. Spots amphigenous, small (1-3 millim.), scattered, irregular in shape and indefinitely limited, dark dirty brown; hyphæ amphigenous, in small, dark-colored, inconspicuous tufts with a sphaeriæform, tubercular base, short, subferuginous, sparingly toothed; conidia hyaline, narrow-obclavate, mostly curved, nucleate, $30-40 \times 2-2\frac{1}{2} \mu$. On the same leaves are larger ($\frac{1}{2}$ -1 cm.) rusty-brown spots, on some of which is a *Phyllosticta* with small ($4-5 \times 2\frac{1}{2} \mu$), hyaline sporules. The *Cercospora* is also found sparingly on some of the large spots, but is mostly confined to the smaller, darker-colored spots.

CERCOSPOERA PRUNICOLA, E. & E.—On leaves of *Prunus Americana*, Point à la Hache, La., October, 1886. Langlois, No. 542. Spots amphigenous, subindefinite, purplish-brown, 2-3 millim. in diam.; hyphæ mostly hypophyllous, short ($10-15 \mu$), slightly colored, arising from a distinct tubercular base; conidia nearly hyaline, nucleate, becoming faintly three or more septate, $30-45 \times 2\frac{1}{2} \mu$, much smaller and paler than those of *C. circumscissa*, Sacc., or *C. cerasella*, Sacc.

CERCOSPOERA ATROMACULANS, E. & E.—On leaves of *Cassia. Cora.*
Anania spinosa, Natchitoches, La., September, 1886. Langlois, No. 707. Spots amphigenous, black, subindefinite, orbicular, $\frac{1}{2}$ -1 cm. in diameter, few on a leaf, roughened by the tubercular-fasciculate tufts of hyphæ on both sides of the leaf; hyphæ brown, septate, irregular in outline, undulate, jagged and toothed and crooked above, about $75 \times 4 \mu$; conidia obclavate, subfuscous, granular and nucleate, $40-75 \times 3-4 \mu$.

CERCOSPOERA CINCHONÆ, E. & E.—On living leaves of *Cinchona* in a garden, Lafayette, La., September, 1886. Langlois, No. 720. Spots amphigenous, definite, nearly black above, with a narrow, slightly raised margin, brownish-black below, 2-3 millim. in diam.; hyphæ epiphyllous in small, scattered, sphaeriæform tufts, very short; conidia cylindrical, yellowish-hyaline, nearly straight, becoming faintly 3-septate, $25-35 \times 2\frac{1}{2} \mu$.

CERCOSPOERA KAKI, E. & E.—On living leaves of *Diospyros Kaki* (Japan persimmon) in a garden, Lafayette, La., September, 1886. Langlois, No. 722. Spots amphigenous, irregular, $\frac{1}{2}$ -1 cm. in diam., definite, rusty-brown, becoming gray with a black center above, rather lighter and less definitely-limited below; hyphæ mostly epiphyllous, subhyaline, short ($10-15 \times 3 \mu$), forming scattered tufts with a tubercular base;

conidia cylindrical, 40–60 (mostly 40–50) \times 3–4 μ , yellowish-hyaline, nucleate (becoming septate?). This differs from *C. Diospyri*, Thm., in its epiphyllous growth on definite spots and in its much shorter, subhyaline, mostly entire hyphæ. Mr. L. also sends a *Cercospora* on leaves of *Viburnum plicatum* on blackish, subindefinite, subconfluent spots ($\frac{1}{2}$ –1 cm.), often becoming grayish in the center, with very short, epiphyllous, fasciculate, subhyaline hyphæ on a distinct, tubercular base and long (50–70 \times 2 $\frac{1}{2}$ μ), yellowish-hyaline, nucleate conidia. The specimens agree well with Peck's *C. varia*, except in the epiphyllous hyphæ. From an examination of Saccardo's specimen of *C. tineæ* in *Mycotheca Veneta*, we are inclined to refer the Louisiana specimens to that species, though we could not well make out the hyphæ in the M. V. specimen, on which, however, the hyphæ are epiphyllous and in sparsely-scattered tufts exactly as in the specimens sent by Mr. Langlois.

CERCOSPORA MIMULI, E. & E.—On leaves of *Mimulus alatus*, Columbia, Mo. Prof. S. M. Tracy. Spots amphigenous, round, whitish (1–2 millim. diam.), with a purple border; hyphæ amphigenous, short (15–25 μ), continuous, pale brown, comparatively thick (4–5 μ), entire or slightly toothed above, tufted on a minute tubercular base, tufts thickly scattered over the spots; conidia hyaline, sparingly septate or oftener continuous and nucleate, 40–60 \times 2 $\frac{1}{2}$ –3 μ .

CERCOSPORA VITIS^{ici's}, E. & E.—On living leaves of *Vitex agnus castus*, in a garden, Lafayette, La., September, 1886. Langlois, No. 727. Spots amphigenous, cinereous, brown above with a narrow, darker margin, paler and more indefinite below, irregular or suborbicular, 2–4 millim. diam.; tufts epiphyllous, minute, scattered, black, consisting of short (10–15 \times 3 μ), brownish hyphæ more or less bent and irregular above and arising from a small tubercular base; conidia subcylindrical, the longer ones attenuated above, smoky hyaline, 30–45 \times 2 $\frac{1}{2}$ μ , becoming about 3-septate. On the same spots are small, erumpent, pale, membranaceous perithecia (*Pyrenochaete minor*, E. & E.) about 75 μ in diam., with a large apical opening surrounded by a circle of black, slender bristles, 75–100 μ long; sporules ovate-elliptical, hyaline, continuous, 2 $\frac{1}{2}$ –3 \times 1 $\frac{1}{2}$ –1 $\frac{1}{2}$ μ .

CERCOSPORA ERYTHRINÆ, E. & E.—On living leaves of *Erythrina crista galli*, Lafayette, La., September, 1886. Langlois, No. 728. Spots amphigenous, small (1 millim.), white, with a rusty-red border, rusty red below without any white center; hyphæ epiphyllous, fasciculate, on a tubercular base, stout, pale brown, geniculate and crooked above, 30–50 \times 4–5 μ ; conidia mostly about 35 \times 2 $\frac{1}{2}$ μ , nucleate, yellowish-hyaline, much attenuated above; some, however, are shorter and thicker (25–30 \times 3 μ) and 2–3-septate. On the same spots is a *Phyllosticta* with oblong-elliptical or ovate-elliptical sporules, 6–8 \times 2 $\frac{1}{2}$ –3 μ (*P. Australis*, Speg?).

CERCOSPORA LEONOTIDIS, Cke.—On living leaves of *Leonotis nepetifolia*, Point a' la Hache, La., September, 1886. Langlois, No. 768. Spots amphigenous, pale, round, subindefinite, 2–3 millim. diam., often convex below; hyphæ amphigenous (mostly hypophyllous), very short (10–15 μ), on a tubercular base, nearly entire or olivaceous, brown; conidia nearly hyaline, linear-obclavate, about 3-septate, 35–45 \times 2 $\frac{1}{2}$ –3 $\frac{1}{2}$.

CERCOSPORA SALICINA, E. & E.—On leaves of *Salix nigra*, Louisiana, September, 1886. Langlois, No. 783. Spots amphigenous, blackish, irregular, more or less confluent and scattered thickly over the whole leaf, which appears as if blotched and spattered with some dark liquid; hyphæ fasciculate in small, amphigenous tufts, brownish-subhyaline, short, $12-20 \times 3 \mu$, entire or sparingly toothed and sometimes branched above; conidia obclavate, nucleate, subfuscous-hyaline, $25-40 \times 2-2\frac{1}{2} \mu$.

CERCOSPORA TRUNCATA, E. & E.—On living leaves of *Vitis indivisa*, Willd., Louisiana, November, 1886. Langlois, No. 780. Spots amphigenous, dirty brown, darker above, indefinite, small, subconfluent, thickly sprinkled over the leaf, giving it a spattered look. The leaf soon becomes dead and dry around the margin; tufts hypophyllous, quite evenly distributed on the spots, forming subvelutinous, smoky, olive patches, which finally become gray; hyphæ fasciculate, arising from a small, subtubercular base, cylindrical, simple, mostly straight and truncate above, the apex showing a round opening like the cross section of a tube, brown and only sparingly septate, $50-90 \times 4-5 \mu$; conidia slender-obclavate, hyaline, becoming 3-6-septate, gradually attenuated above into a long, slender point, $70-112$ by about 4μ at the base. This is very distinct from *C. viticola* (Ces.) Sacc. (*Graphium clavisporem*, B. & C.), but is closely allied to *C. canescens*, E. & M., from which it differs principally in its more dwarfed growth and different habitat.

~~CERCOSPORA~~ ^{*Cancelled*} ~~CONSOBRINA~~ ^{*of C. Rubra tinctoria. 222*}, E. & E.—On living leaves of peach trees, Louisiana, June, 1886. Langlois, No. 685. Spots amphigenous, small (2 millim.), rusty brown, at length well defined, purple bordered; hyphæ epiphyllous in minute, scattered tufts, short $12-20 \times 2\frac{1}{2}-3 \mu$, subhyaline above and subdentate, arising from a small, tubercular base; conidia slender, hyaline, subcylindrical, $30-40 \times 2\frac{1}{2} \mu$, becoming faintly three or more septate. Very different from *C. persica*, Sacc.

CERCOSPORA VERBENICOLA, E. & E.—On leaves of *Verbena Xutha*, Louisiana, Langlois, No. 686. Leaves marked above and below with small (2-3 millim.), rusty-brown, indefinite spots; hyphæ amphigenous, but mostly hypophyllous, fasciculate, few in a tuft, coarse (about $40 \times 4 \mu$), subnodulose and irregular in outline, pale brown, 1-2-septate; conidia hyaline, nucleate, $30-50 \times 2\frac{1}{2}-3 \mu$, subcylindrical, only slightly attenuated above.

CERCOSPORA VIGUE, E. & E.—On leaves of *Vigna luteola*, Louisiana, October, 1886. Rev. A. B. Langlois. Spots amphigenous, small, irregular, reddish-brown; tufts effused, smoky-olivaceous, forming velutinous patches not entirely confined to the spots; hyphæ short ($35-45 \times 4-5 \mu$), crooked, spreading, shouldered and subdentate above, pale brown, mostly continuous, hypophyllous; conidia slender, hyaline, nucleate, becoming 3-5-septate, $70-110 \times 3 \mu$. *Cercospora canescens*, E. & M., was also found on the same leaves, but is readily distinguished by its distinct black tufts and its longer, straighter hyphæ and longer, broader, multiseptate conidia. Also quite distinct from *C. Phaseolorum*, Cke.

CERCOSPORA STILLINGIÆ, E. & E.—On leaves of *Stillingia sebifera*, Point a' la Hache, La., November, 1886. Rev. A. B. Langlois, No. 846. Spots amphigenous, suborbicular, dark brown, with a narrow, dark border, 2–4 millim.; hyphæ amphigenous, but mostly epiphyllous, very short (10–15 μ), colored, arising from a distinct tubercular base; conidia cylindrical, slightly curved, without any distinct nuclei or septa, 25–35 x 2½–3 μ . Tufts of hyphæ thickly scattered on the spots.

CERCOSPORA RUBROTINCTA, E. & E.—On leaves of *Persica vulgaris*, Point a' la Hache, La., November, 1886. Rev. A. B. Langlois, No. 524. Spots amphigenous, dark red, with a lighter red border and the leaf more or less stained and blotched with red; hyphæ amphigenous, short (12–15 μ), olivaceous, fasciculate, forming loose, olivaceous tufts; conidia linear-subclavate, nucleate, slightly smoky, 35–50 x 2½–3 μ . Very different from *C. persica*, Sacc., which occurs on the same leaves and is a good *Cylindrosporium*. Not to be confounded with *Clasterisporium Amygdalearum*, Pass.

CERCOSPORA LIPPIÆ, E. & E.—On leaves of *Lippia nodiflora*, Louisiana, November, 1886. Langlois, No. 826. Spots amphigenous, grayish, round, with a definite, narrow, raised border, 2–3 millim. in diam.; hyphæ amphigenous, fasciculate on the tubercular base, pale brown, continuous, undulate and paler above, 35–50 x 3–4 μ ; conidia slender-obclavate, subhyaline, nucleate, 70–100 x 3 μ .

CERCOSPORA FRAXINITES, E. & E.—On living leaves of *Fraxinus*, Bohemia, Plaquemines Co., La., November, 1886. Rev. A. B. Langlois, No. 809. Spots amphigenous, dark brown, suborbicular and subindefinite, 3–4 millim. across, not abundant; hyphæ amphigenous, densely fasciculate, short (15–30 x 2½–3 μ), browning, crooked, forming numerous small, black tufts thickly scattered over the spots; conidia subhyaline, cylindrical or slightly attenuated above, nucleate, 35–60 x 2½–3 μ . *C. superflua*, E. & H., has broader, yellow-brown conidia. *C. Fraxini* (DC.) according to de Thumen's specimens, is also different.

CERCOSPORA HELIANTHI, E. & E.—Columbia, Mo., October, 1886. Prof. S. M. Tracy, No. 208. Spots none; hyphæ hypophyllous, fasciculate, olive-brown, nucleate, becoming septate, crooked above, 70–90 x 5–6 μ , forming loose, olivaceous, indefinitely-limited patches; conidia obclavate, olivaceous, nucleate, becoming 3–6-septate, 70–110 x 5–6 μ .

CERCOSPORA POPULINA, E. & E.—On leaves of *Populus alba* and *P. angulata*, Point a' la Hache, La., November, 1886. Rev. A. B. Langlois, Nos. 818 and 819. Spots amphigenous, irregular and subconfluent (2–5 millim.), dark brown, becoming gray or whitish; hyphæ densely fasciculate, short (12–15 μ), brownish, forming numerous black tufts thickly scattered over the surface of the spots; conidia cylindrical, slightly curved, scarcely attenuated above, hyaline, becoming faintly 1–3-septate, 25–40 x 2½–3 μ . In the form on *P. alba* the spots are scarcely discernible below on account of the down on the lower surface of the leaf. Very closely allied to *C. fraxinites*, only differing in habitat, mostly epiphyllous growth and shorter conidia.

CERCOSPORA PALLIDA, E. & E.—On living leaves of *Tecoma radicans*, Louisiana, September, 1886. Langlois, No. 797. Spots amphigenous, indefinite, more or less confluent, causing the leaf to turn yellowish or oftener purplish in spots which at length become blackish above and rusty-brown below; hyphæ fasciculate, mostly few in a fascicle, short, $15-20 \times 3 \mu$, pale brown, subnodulose, arising from a small tubercular base, the tufts thickly scattered over the discolored areas; conidia subcylindrical, nearly hyaline, granular or nucleate, becoming 3–5-septate, $30-55 \times 2-2\frac{1}{2} \mu$. *C. sordida*, Sacc, is of a more robust growth and dark, olivaceous color.

CERCOSPORA RACEMOSA, E. & M., has been found also on *Ambrosia tripartita*. Kansas (Kellerman, No. 879).

GLOEOSPORIUM ARIDUM, Ell. & Holw.—On living leaves of *Fraxinus Americana*, Racine, Wis., June, 1886. Dr. J. J. Davis. Spots amphigenous, yellowish-brown, definite, irregular, 2 or more cm. across, rendering the substance of the leaf brittle, so that it easily breaks away; acervuli hypophyllous, pale, numerous, small; spores oblong or oblong-elliptical, hyaline, 2-nucleate, $5-8 \times 2\frac{1}{2}-3\frac{1}{2} \mu$. Differs from *G. fraxineum*, Pk., in the large, irregular spots and from *G. punctiforme*, E. & E., in its different spots and much smaller spores.

GLOEOSPORIUM YUCCÆGENUM, E. & E.—On living leaves of *Yucca filamentosa*, Columbia, Mo., August, 1886. B. T. Galloway, No. 115. Acervuli gregarious, small, erumpent, pale; spores cylindrical, mostly a little curved, granular, some of them 1–2-nucleate, ends obtuse, $20-25 \times 4-6 \mu$.

GLOEOSPORIUM PUNCTIFORME, E. & E.—On living leaves of *Fraxinus Americana*, Delaware. A. Commons, No. 287. Leaves faintly mottled above with yellow specks; acervuli erumpent on the under side of the leaf, exuding pale yellowish masses of spores which are of an oblong shape, $15-22 \times 7-8 \mu$, strongly constricted in the middle and uniseptate, ends obtuse. Quite different from *G. Fraxini*, Hark., or *G. fraxineum*, Pk.

GLOEOSPORIUM ACERINUM, Pass.—On leaves of *Acer dasycarpum*, Columbia, Mo., July, 1886. B. T. Galloway. Spots amphigenous, small, irregular and subangular, thickly scattered over the leaf, dirty brown with a shaded yellow border, causing the upper surface of the leaf to appear mottled with yellow; acervuli subcutaneous, erumpent on the lower surface of the leaf in small, pale, amber-colored masses; spores cylindrical, curved, 1-septate, $18-22 \times 3 \mu$. The specimens in Thumen's Mycotheca (No. 93) have the spores 3-septate—Saccardo, in Sylloge, says "spuriously bisepate." The general appearance of the Missouri specimens is the same as that of de Thumen's specimens and it is not improbable that when mature they may become 3-septate.

CYLINDROSPORIUM HUMULI, E. & E.—On living leaves of cultivated hops (*Humulus lupulus*). Faulkland, Del., September, 1886. A. Commons, No. 357. Spots amphigenous, but mostly hypophyllous, small, angular, limited by the veinlets of the leaf, rusty-brown; acervuli minute, black, amphigenous; conidia nearly cylindrical, hyaline, granular and nucleate, $40-50 \times 3 \mu$, oozing out in thick whitish cirrhi and soon diffused as a white film or coat over the surface of the spots.

✧ *CYLINDROSPORIUM CLEMATIDIS*, E. & E.—On living leaves of *Clematis Virginiana*, Faulkland, Del., September, 1885. A. Commons, No. 235. Spots amphigenous, reddish-brown, round or subangular, 1–3 millim. in diam.; acervuli comparatively few, epiphyllous, immersed, scattered; spores exuding in white tufts, fusoid-linear, $75-80 \times 2\frac{1}{2}-3 \mu$, nucleate, becoming multiseptate, somewhat curved. Seems to differ from *C. Ranunculi*, Bon., in its distinct spots and shorter basidia.

CYLINDROSPORIUM PULCHRUM, Speg.—We have received from B. T. Galloway, Columbia, Mo., specimens of a fungus on living leaves of *Rumex* and which we believe to be the above-named species. The acervuli are thickly scattered over the entire surface of the leaf, are of a whitish color, very minute and burst out on both sides of the leaf, but perhaps more abundantly below. There are no definite spots, but the leaf is more or less tinged with yellow. The conidia vary from $8-35 \mu$ long and are $1\frac{1}{2}-2 \mu$ wide, without septa.

✧ *CYLINDROSPORIUM APOCYNI*, E. & E.—On leaves of *Apocynum androsæmifolium*, Faulkland, Del., October, 1886. A. Commons, No. 407. Spots amphigenous, dark brown, rather indefinitely limited and of rather irregular shape, 2–4 millim. in diam., subconcentrically marked and subconfluent, at length whitened by the exuding conidia, which are $50-80 \times 4-5 \mu$, vermiform-cylindrical and more or less curved and finally faintly 3–5-septate; acervuli small, numerous, mostly erumpent above. The affected leaves soon become brown.

CYLINDROSPORIUM CERCOSPOROIDES, E. & E.—On living leaves of *Liriodendron Tulipifera*, Washington, D. C., October, 1885. Com. Prof. F. L. Scribner. Spots amphigenous, suborbicular, large (1 cm.), brown, rather indefinite; acervuli hypophyllous, punctiform, minute; conidia erumpent, filiform, multinucleate, becoming multiseptate, $130-170 \times 3-3\frac{1}{2} \mu$, hyaline (basidia obovate?). Appears like a diffused white down on the surface of the spots and much resembles a *Cercospora*, but the conidia appear to originate beneath the epidermis.

NEW LITERATURE.

BY W. A. KELLERMAN.

"THE MALARIAL GERM OF LAVERAN." By Geo. M. Sternberg, M. D., Medical Record, May, 1886.

"NOTE SUR UN DEVELOPPEMENT GEMELLAIRE DU PHALLAS IMPUDICUS," Par M. Boudier, Revue Mycologique, Janvier, 1887.

Note sur les "CHAMPIGNOUS DE DELILLE" echus aux heritiers N. Joly. C. Roumeguere. l. c.

"RECHERCHES SUR LE GENRE RHIZOCTONIA," par E. Rostrup. l. c.

"FUNGI NOVI VEL MINUS BENE COGNITI FENNIE ET GALLIE DESCRIPSIT" P. A. Karsten. 1. c.

"CHAMPIGNON PHOSPHORESCENT PARASITE DU PATURIN DESPRES." L'abbé Joseph Dulac.

"FUNGI GALLICI EXSICCATI." Centurie XLe, C. Roumeguere.

The American species contained in this century are as follows: *Puccinia Zopfi*, Winter; *Aecidium Gilice*, Peck; *Ae. punctatum*, Pers.; *Eutyloma Ranunculi*, Bon. var. *Thalictir*, Farlow; *Septoria Nolitanensis*, Ger.; *Sep. Cacalix*, E. & K.; *Cercospora Hydropiperis* (Thum.) Speg.; *Eriueum Populinum*, Pers.

"CHAMPIGNONS PARASITES DES EUCALYPTUS [SEPTORIA EUCALYPTI], WINT. ET ROUM." C. Roumeguere. 1. c.

"SYNCHYTRIUM CUPULATUM," n. sp. Von. Dr. Fr. Thomas, in Ohrdruf. Botanisches Centralblatt, No. 1, 1887.

"REPORT OF THE FUNGUS DISEASES OF THE GRAPE VINE." By F. Lamson Scribner, Dept. of Agr., Botan. Divis. Bulletin No. 11.

The fungi described, with remedies, etc., in this report of 136 pages are the "Downy Mildew" (*Perospora viticola*, De By), the "Powdery Mildew" (*Ucinula spiralis*, B. & C.), "The Black Rot" (*Physalospora Bidwillii*, Sacc.), "Anthracnose" (*Sphaceloma unipelinum*, De By.), "Grape-leaf Blight" (*Cercospora viticola*, Sacc.) and "Grape-leaf Spot" (*Phyllosticta Labruscæ*, Thum.) The illustrations cover seven pages, three of them colored.

"NOMENCLATURE OF COLORS FOR NATURALISTS." By Robert Ridgeway. Little, Brown & Co., Boston, 1886.

This neat book contains 130 pages and seventeen plates, many of them colored. Pp. 61-118 consist of a glossary for ornithologists, but the remaining parts are of equal interest and value to the botanical artist.

"FUNGI GUARANITICI." By Dr. Carlos Spegazzini (concluded). In the "Annales de la Sociedad Cientifica Argentina" for October and November, 1886, there are enumerated and described 119 species of fungi. Many of these are new and all are numbered as if forming part of a distributed set. The text is in Latin and the numbers range from 316 to 435. The following orders are included: *Myxomycetæ*, *Sphæropoideæ*, *Melaconieæ*, *Mucedinae*, *Dematiæ*, *Tubercularieæ* and *Stilbeæ*. B.

ADDENDA.

The following omissions occur in the "Index to Genera and Species" on pp. five and six:

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